## Sequence Listing

<110> Botstein, David

Desnoyers,Luc

Ferrara, Napoleone

Fong, Sherman

Gao, Wei-Qiang

Goddard, Audrey

Gurney, Austin L.

Pan, James

Roy, Margaret Ann

Stewart, Timothy A.

Tumas, Daniel

Watanabe, Colin K.

Wood, William I.

<120> Secreted and Transmembrane Polypeptides and Nucleic Acids Encoding the Same

<130> P2930R1C2

<150> 60/095,325

<151> 1998-08-04

<150> 60/112,851

<151> 1998-12-16

<150> 60/113,145

<151> 1998-12-16

<150> 60/113,511

<151> 1998-12-22

<150> 60/115,558

<151> 1999-01-12

<150> 60/115,565

<151> 1999-01-12

<150> 60/115,733

<151> 1999-01-12

<150> 60/119,341

<151> 1999-02-09

- <151> 2000-03-03
- <150> PCT/US99/12252
- <151> 1999-06-02
- <150> PCT/US99/28634
- <151> 1999-12-01
- <150> PCT/US99/28551
- <151> 1999-12-02
- <150> PCT/US00/03565
- <151> 2000-02-11
- <150> PCT/US00/04414
- <151> 2000-02-22
- <150> PCT/US00/05841
- <151> 2000 -03-02
- <150> PCT/US00/08439
- <151> 2000-03-30
- <150> PCT/US00/14941
- <151> 2000-05-30
- <150> PCT/US00/15264
- <151> 2000-06-02
- <150> PCT/US00/32678
- <151> 2000-12-01
- <140> US 09/866,034
- <141> 2001-05-25
- <160> 38
- <210> 1
- <211> 1283
- <212> DNA
- <213> Homo sapiens
- <400> 1
- cggacgcgtg ggacccatac ttgctggtct gatccatgca caaggcgggg 50
- ctgctaggcc tctgtgcccg ggcttggaat tcggtgcgga tggccagctc 100
- cgggatgacc cgccgggacc cgctcgcaaa taaggtggcc ctggtaacgg 150
- cctccaccga cgggatcggc ttcgccatcg cccggcgttt ggcccaggac 200
- ggggcccatg tggtcgtcag cagccggaag cagcagaatg tggaccaggc 250
- ggtggccacg ctgcaggggg aggggctgag cgtgacgggc accgtgtgcc 300
- atgtggggaa ggcggaggac cgggagcggc tggtggccac ggctgtgaag 350

cttcatggag gtatcgatat cctagtctcc aatgctgctg tcaacccttt 400 ctttggaagc ataatggatg tcactgagga ggtgtgggac aagactctgg 450 acattaatgt gaaggcccca gccctgatga caaaggcagt ggtgccagaa 500 atggagaaac gaggaggcgg ctcagtggtg atcgtgtctt ccatagcagc 550 cttcagtcca tctcctggct tcagtcctta caatgtcagt aaaacagcct 600 tgctgggcct gaccaagacc ctggccatag agctggcccc aaggaacatt 650 agggtgaact gcctagcacc tggacttatc aagactagct tcagcaggat 700 gctctqqatq qacaaggaaa aagaggaaag catgaaagaa accctgcgga 750 taagaaggtt aggcgagcca gaggattgtg ctggcatcgt gtctttcctg 800 tgctctgaag atgccagcta catcactggg gaaacagtgg tggtgggtgg 850 aggaaccccg tcccgcctct gaggaccggg agacagccca caggccagag 900 ttgggctcta gctcctggtg ctgttcctgc attcacccac tggcctttcc 950 cacctctqct caccttactg ttcacctcat caaatcagtt ctgccctgtg 1000 aaaagatcca gccttccctg ccgtcaaggt ggcgtcttac tcgggattcc 1050 tgctgttgtt gtggccttgg gtaaaggcct cccctgagaa cacaggacag 1100 gcctgctgac aaggctgagt ctaccttggc aaagaccaag atatttttc 1150 ctgggccact ggtgaatctg aggggtgatg ggagagaagg aacctggagt 1200 ggaaggagca gagttgcaaa ttaacagctt gcaaatgagg tgcaaataaa 1250 atgcagatga ttgcgcggct ttgaaaaaaa aaa 1283

<210> 2

<211> 278

<212> PRT

<213> Homo sapiens

<400> 2

Met His Lys Ala Gly Leu Leu Gly Leu Cys Ala Arg Ala Trp Asn 1 5 10 15

Ser Val Arg Met Ala Ser Ser Gly Met Thr Arg Arg Asp Pro Leu 20 25 30

Ala Asn Lys Val Ala Leu Val Thr Ala Ser Thr Asp Gly Ile Gly

Phe Ala Ile Ala Arg Arg Leu Ala Gln Asp Gly Ala His Val Val
50 55 60

Val Ser Ser Arg Lys Gln Gln Asn Val Asp Gln Ala Val Ala Thr 65 70 75

Leu Gln Gly G	lu Gly	Leu Se	r Val	Thr	Gly 85	Thr	Val	Cys	His	Val 90
Gly Lys Ala G	lu Asp 95	Arg Gl	u Arg	Leu	Val 100	Ala	Thr	Ala	Val	Lys 105
Leu His Gly G	Sly Ile	Asp Il	e Leu	Val	Ser 115	Asn	Ala	Ala	Val	Asn 120
Pro Phe Phe G	ly Ser 125	Ile Me	t Asp	Val	Thr 130	Glu	Glu	Val	Trp	Asp 135
Lys Thr Leu A	sp Ile 140	Asn Va	l Lys	Ala	Pro 145	Ala	Leu	Met	Thr	Lys 150
Ala Val Val F	ro Glu 155	Met Gl	u Lys	Arg	Gly 160	Gly	Gly	Ser	Val	Val 165
Ile Val Ser S	Ser Ile 170	Ala Al	a Phe	Ser	Pro 175	Ser	Pro	Gly	Phe	Ser 180
Pro Tyr Asn V	al Ser 185	Lys Th	r Ala	Leu	Leu 190	Gly	Leu	Thr	Lys	Thr 195
Leu Ala Ile (	Slu Leu 200	Ala Pr	o Arg	Asn	Ile 205	Arg	Val	Asn	Cys	Leu 210
Ala Pro Gly I	eu Ile 215	Lys Th	r Ser	Phe	Ser 220	Arg	Met	Leu	Trp	Met 225
Asp Lys Glu I	ys Glu 230	Glu Se	r Met	Lys	Glu 235	Thr	Leu	Arg	Ile	Arg 240
Arg Leu Gly (	Glu Pro 245	Glu As	p Cys	Ala	Gly 250	Ile	Val	Ser	Phe	Leu 255
Cys Ser Glu A	Asp Ala 260	Ser Ty	r Ile	Thr	Gly 265	Glu	Thr	Val	Val	Val 270
Gly Gly Gly 7	Thr Pro 275	Ser Ar	g Leu							
<210> 3 <211> 21 <212> DNA <213> Artific	ial Sequ	ience								
<220> <223> Synthet:	ic Oligo	onucleo	tide	Prob	е					
<400> 3 gcataatgga to	gtcactga	ag g 21								
<210> 4 <211> 23 <212> DNA <213> Artific:	ial Sequ	ıence								

<220> <223> Synthetic Oligonucleotide Probe <400> 4 agaacaatcc tgctgaaagc tag 23 <210> 5 <211> 46 <212> DNA <213> Artificial Sequence <220> <223> Synthetic Oligonucleotide Probe <400> 5 gaaacgagga ggcggctcag tggtgatcgt gtcttccata gcagcc 46 <210> 6 <211> 3121 <212> DNA <213> Homo sapiens <400> 6 gegeeetgag eteegeetee gggeeegata geggeatega gagegeetee 50 gtcgaggacc aggcggcgca gggggccggc gggcgaaagg aggatgaggg 100 ggcgcagcag ctgctgaccc tgcagaacca ggtggcgcgg ctggaggagg 150 agaaccgaga ctttctggct gcgctggagg acgccatgga gcagtacaaa 200 ctgcagagcg accggctgcg tgagcagcag gaggagatgg tggaactgcg 250 gctgcggtta gagctggtgc ggccaggctg ggggggcctg cggctcctga 300 atggcctgcc tcccgggtcc tttgtgcctc gacctcatac agccccctg 350 gggggtgccc acgcccatgt gctgggcatg gtgccgcctg cctgcctccc 400 tggagatgaa gttggctctg agcagagggg agagcaggtg acaaatggca 450 gggaggctgg agctgagttg ctgactgagg tgaacaggct gggaagtggc 500 tcttcagctg cttcagagga ggaagaggag gaggaggagc cgcccaggcg 550 gacettacae etgegeagaa ataggateag caactgeagt eagagggegg 600 gggcacgccc agggagtctg ccagagagga agggcccaga gctttgcctt 650 gaggagttgg atgcagccat tccagggtcc agagcagttg gtgggagcaa 700 ggcccgagtt caggcccgcc aggtcccccc tgccacagcc tcagagtggc 750 ggctggccca ggcccagcag aagatccggg agctggctat caacatccgc 800 atgaaggagg agcttattgg cgagctggtc cgcacaggaa aggcagctca 850 ggccctgaac cgccagcaca gccagcgtat ccgggagctg gagcaggagg 900 cagagcaggt gegggeegag etgagtgaag gecagaggea getgegggag 950 ctcgagggca aggagctcca ggatgctggc gagcggtctc ggctccagga 1000 gttccgcagg agggtcgctg cggcccagag ccaggtgcag gtgctgaagg 1050 agaagaagca ggctacggag cggctggtgt cactgtcggc ccagagtgag 1100 aagcgactgc aggagctcga gcggaacgtg cagctcatgc ggcagcagca 1150 gggacagetg cagaggegge ttegegagga gaeggageag aageggegee 1200 tggaggcaga aatgagcaag cggcagcacc gcgtcaagga gctggagctg 1250 aagcatgagc aacagcagaa gatcctgaag attaagacgg aagagatcgc 1300 ggccttccag aggaagaggc gcagtggcag caacggctct gtggtcagcc 1350 tggaacagca gcagaagatt gaggagcaga agaagtggct ggaccaggag 1400 atggagaagg tgctacagca gcggcgggcg ctggaggagc tgggggggga 1450 gctccacaag cgggaggcca tcctggccaa gaaggaggcc ctgatgcagg 1500 agaagacggg gctggagagc aagcgcctga gatccagcca ggccctcaac 1550 gaggacatcg tgcgagtgtc cagccggctg gagcacctgg agaaggagct 1600 gtccgagaag agcgggcagc tgcggcaggg cagcgcccag agccagcagc 1650 agatccgcgg ggagatcgac agcctgcgcc aggagaagga ctcgctgctc 1700 aagcagcgcc tggagatcga cggcaagctg aggcagggga gtctgctgtc 1750 ccccgaggag gagcggacgc tgttccagtt ggatgaggcc atcgaggccc 1800 tggatgctgc cattgagtat aagaatgagg ccatcacatg ccgccagcgg 1850 gtgcttcggg cctcagcctc gttgctgtcc cagtgcgaga tgaacctcat 1900 ggccaagete agetacetet cateeteaga gaccagagee eteetetgea 1950 agtattttga caaggtggtg acgctccgag aggagcagca ccagcagcag 2000 attgccttct cggaactgga gatgcagctg gaggagcagc agaggctggt 2050 gtactggctg gaggtggccc tggagcggca gcgcctggag atggaccgcc 2100 agetgaeeet geageagaag gageaegage agaacatgea getgeteetg 2150 cagcagagtc gagaccacct cggtgaaggg ttagcagaca gcaggaggca 2200 gtatgaggcc cggattcaag ctctggagaa ggaactgggc cgttacatgt 2250 ggataaacca ggaactgaaa cagaagctcg gcggtgtgaa cgctgtaggc 2300 cacagcaggg gtggggagaa gaggagcctg tgctcggagg gcagacaggc 2350 tcctggaaat gaagatgagc tccacctggc acccgagctt ctctggctgt 2400 ccccctcac tgaggggcc ccccgcaccc gggaggagac gcgggacttg 2450 qtccacqctc cqttaccctt gacctggaaa cgctcgagcc tgtgtggtga 2500 ggagcagggg teeceegagg aactgaggca gegggaggeg getgageece 2550 tggtggggg ggtgcttcct gtgggtgagg caggcctgcc ctggaacttt 2600 gggcctttgt ccaagccccg gcgggaactg cgacgagcca gcccggggat 2650 gattgatgtc cggaaaaacc ccctgtaagc cctcggggca gaccctgcct 2700 tggagggaga ctccgagcct gctgaaaggg gcagctgcct gttttgcttc 2750 tqtqaaqqqc agtccttacc gcacacccta aatccaggcc ctcatctgta 2800 ccctcactqq qatcaacaaa tttgggccat ggcccaaaag aactggaccc 2850 tcatttaaca aaataatatg caaattccca ccacttactt ccatgaagct 2900 qtqqtaccca attqccqcct tgtgtcttgc tcgaatctca ggacaattct 2950 qqtttcaqqc qtaaatqqat gtgcttgtag ttcaggggtt tggccaagaa 3000 tcatcacgaa agggtcggtg gcaaccaggt tgtggtttaa atggtcttat 3050 gtatataggg gaaactggga gactttagga tcttaaaaaa ccatttaata 3100 aaaaaaaatc tttgaaggga c 3121

<210> 7

<211> 830

<212> PRT

<213> Homo sapiens

<400> 7

Met Glu Gln Tyr Lys Leu Gln Ser Asp Arg Leu Arg Glu Gln Gln
1 5 10 15

Glu Glu Met Val Glu Leu Arg Leu Arg Leu Glu Leu Val Arg Pro  $20 \ 25 \ 30$ 

Gly Trp Gly Gly Leu Arg Leu Leu Asn Gly Leu Pro Pro Gly Ser 35 40 45

Phe Val Pro Arg Pro His Thr Ala Pro Leu Gly Gly Ala His Ala 50 55 60

His Val Leu Gly Met Val Pro Pro Ala Cys Leu Pro Gly Asp Glu 65 70 75

Val Gly Ser Glu Gln Arg Gly Glu Gln Val Thr Asn Gly Arg Glu 80 85 90

Ala Gly Ala Glu Leu Leu Thr Glu Val Asn Arg Leu Gly Ser Gly
95 100 105

Ser Ser Ala Ala Ser Glu Glu Glu Glu Glu Glu Glu Glu Pro Pro 110 115 Arg Arg Thr Leu His Leu Arg Arg Asn Arg Ile Ser Asn Cys Ser Gln Arg Ala Gly Ala Arg Pro Gly Ser Leu Pro Glu Arg Lys Gly Pro Glu Leu Cys Leu Glu Glu Leu Asp Ala Ala Ile Pro Gly Ser Arg Ala Val Gly Gly Ser Lys Ala Arg Val Gln Ala Arg Gln Val Pro Pro Ala Thr Ala Ser Glu Trp Arg Leu Ala Gln Ala Gln Gln Lys Ile Arg Glu Leu Ala Ile Asn Ile Arg Met Lys Glu Glu Leu Ile Gly Glu Leu Val Arg Thr Gly Lys Ala Ala Gln Ala Leu Asn Arg Gln His Ser Gln Arg Ile Arg Glu Leu Glu Gln Glu Ala Glu Gln Val Arg Ala Glu Leu Ser Glu Gly Gln Arg Gln Leu Arg Glu 245 Leu Glu Gly Lys Glu Leu Gln Asp Ala Gly Glu Arg Ser Arg Leu Gln Glu Phe Arg Arg Val Ala Ala Ala Gln Ser Gln Val Gln Val Leu Lys Glu Lys Lys Gln Ala Thr Glu Arg Leu Val Ser Leu Ser Ala Gln Ser Glu Lys Arg Leu Gln Glu Leu Glu Arg Asn Val 310 Gln Leu Met Arg Gln Gln Gln Gly Gln Leu Gln Arg Arg Leu Arg Glu Glu Thr Glu Gln Lys Arg Arg Leu Glu Ala Glu Met Ser Lys 335 Arg Gln His Arg Val Lys Glu Leu Glu Leu Lys His Glu Gln Gln Gln Lys Ile Leu Lys Ile Lys Thr Glu Glu Ile Ala Ala Phe Gln 375 Arg Lys Arg Arg Ser Gly Ser Asn Gly Ser Val Val Ser Leu Glu Gln Gln Gln Lys Ile Glu Glu Gln Lys Lys Trp Leu Asp Gln Glu

				395					400					405
Met	Glu	Lys	Val	Leu 410	Gln	Gln	Arg	Arg	Ala 415	Leu	Glu	Glu	Leu	Gly 420
Glu	Glu	Leu	His	Lys 425	Arg	Glu	Ala	Ile	Leu 430	Ala	Lys	Lys	Glu	Ala 435
Leu	Met	Gln	Glu	Lys 440	Thr	Gly	Leu	Glu	Ser 445	Lys	Arg	Leu	Arg	Ser 450
Ser	Gln	Ala	Leu	Asn 455	Glu	Asp	Ile	Val	Arg 460	Val	Ser	Ser	Arg	Leu 465
Glu	His	Leu	Glu	Lys 470	Glu	Leu	Ser	Glu	Lys 475	Ser	Gly	Gln	Leu	Arg 480
Gln	Gly	Ser	Ala	Gln 485	Ser	Gln	Gln	Gln	Ile 490	Arg	Gly	Glu	Ile	Asp 495
Ser	Leu	Arg	Gln	Glu 500	Lys	Asp	Ser	Leu	Leu 505	Lys	Gln	Arg	Leu	Glu 510
Ile	Asp	Gly	Lys	Leu 515	Arg	Gln	Gly	Ser	Leu 520	Leu	Ser	Pro	Glu	Glu 525
Glu	Arg	Thr	Leu	Phe 530	Gln	Leu	Asp	Glu	Ala 535	Ile	Glu	Ala	Leu	Asp 540
Ala	Ala	Ile	Glu	Tyr 545	Lys	Asn	Glu	Ala	Ile 550	Thr	Cys	Arg	Gln	Arg 555
			Ala	560					565					570
			Lys	575					580					585
			Lys	590					595					600
			Gln	605					610					615
			Gln	620					625					630
			Leu	635					640					645
			Gln	650					655					660
			Glu	665					670					675
Arg	Ile	Gln	Ala	Leu 680		Lys	Glu	Leu	Gly 685		Tyr	Met	Trp	Ile 690

Asn Gln	Glu Leu	Lys 695	Gln	Lys	Leu	Gly	Gly 700	Val	Asn	Ala	Val	Gly 705
His Ser	Arg Gly	Gly 710	Glu	Lys	Arg	Ser	Leu 715	Cys	Ser	Glu	Gly	Arg 720
Gln Ala	Pro Gly	Asn 725	Glu	Asp	Glu	Leu	His 730	Leu	Ala	Pro	Glu	Leu 735
Leu Trp	Leu Sei	Pro 740	Leu	Thr	Glu	Gly	Ala 745	Pro	Arg	Thr	Arg	Glu 750
Glu Thr	Arg Ası	Leu 755	Val	His	Ala	Pro	Leu 760	Pro	Leu	Thr	Trp	Lys 765
Arg Ser	Ser Le	770	Gly	Glu	Glu	Gln	Gly 775	Ser	Pro	Glu	Glu	Leu 780
Arg Gln	Arg Gl	1 Ala 785	Ala	Glu	Pro	Leu	Val 790	Gly	Arg	Val	Leu	Pro 795
Val Gly	Glu Ala	Gly 800	Leu	Pro	Trp	Asn	Phe 805	Gly	Pro	Leu	Ser	Lys 810
Pro Arg	Arg Gl	ı Leu 815	Arg	Arg	Ala	Ser	Pro 820	Gly	Met	Ile	Asp	Val 825
Arg Lys	Asn Pr	Leu										

<210> 8 <211> 662 <212> DNA <213> Homo sapiens

<400> 8
attetectag ageatetttg gaageatgag gecacgatge tgeatetttg 50

ctettgtetg etggataaca gtetteetee teeagtgtte aaaaggaact 100
acagaegete etgttggete aggaetgtgg etgtgeeage egacaeceag 150
gtgtgggaac aagatetaca accetteaga geagtgetgt tatgatgatg 200
ccatettate ettaaaggag accegeeget gtggeteeae etgeacette 250
tggeeetget ttgagetetg etgteeegag tettttggee eecageagaa 300
gtttettgtg aagttgaggg ttetgggtat gaagteteag tgteacettat 350
cteecatete eeggagetgt accaggaaca ggaggeacgt eetgtaecea 400
taaaaaecee aggeteeact ggeagaegge agacaagggg agaagaacg 450
aageagetgg acateggaga etacagttga actteggaga gaageaactt 500
gaetteagag ggatggetea atgacatage ttttggagagg ageceagetg 550

gggatggcca gacttcaggg gaagaatgcc ttcctgcttc atcccctttc 600 cagctcccct tcccgctgag agccactttc atcggcaata aaatccccca 650 catttaccat ct 662

<210> 9

<211> 125

<212> PRT

<213> Homo sapiens

<400> 9

Met Arg Pro Arg Cys Cys Ile Leu Ala Leu Val Cys Trp Ile Thr 1 5 10 15

Val Phe Leu Leu Gln Cys Ser Lys Gly Thr Thr Asp Ala Pro Val

Gly Ser Gly Leu Trp Leu Cys Gln Pro Thr Pro Arg Cys Gly Asn 35 40 45

Lys Ile Tyr Asn Pro Ser Glu Gln Cys Cys Tyr Asp Asp Ala Ile 50 55 60

Leu Ser Leu Lys Glu Thr Arg Arg Cys Gly Ser Thr Cys Thr Phe 65 70 75

Trp Pro Cys Phe Glu Leu Cys Cys Pro Glu Ser Phe Gly Pro Gln 80 85 90

Gln Lys Phe Leu Val Lys Leu Arg Val Leu Gly Met Lys Ser Gln 95 100 105

Cys His Leu Ser Pro Ile Ser Arg Ser Cys Thr Arg Asn Arg Arg

His Val Leu Tyr Pro 125

<210> 10

<211> 1942

<212> DNA

<213> Homo sapiens

<400> 10

 ttagtggtcc gcccacgcg ggtcgccggc cggcccagga tgggcgctgg 400 caacceggge regegeeege egetgetace cetgegeeeg etgegageee 450 ggcgtccggc ccgcgccctg cgctcatgga cggcggctcc cggctggcgg 500 cggcgcgccc ccgggctgtg aatgcgactc gcccctcggc cgcgctcccc 550 gcccgcccgc ccgccgggac gtggtagggg atgcccagct ccactgcgat 600 ggcagttggc gcgctctcca gttccctcct ggtcacctgc tgcctgatgg 650 tggctctgtg cagtccgagc atcccgctgg agaagctggc ccaggcacca 700 gagcagccgg gccaggagaa gcgtgagcac gccactcggg acggcccggg 750 gcgggtgaac gagctcgggc gcccggcgag ggacgagggc ggcagcggcc 800 gggactggaa gagcaagagc ggccgtgggc tcgccggccg tgagccgtgg 850 agcaagctga agcaggcctg ggtctcccag ggcggggggg ccaaggccgg 900 ggatctgcag gtccggcccc gcggggacac cccgcaggcg gaagccctgg 950 ccgcagccgc ccaggacgcg attggcccgg aactcgcgcc cacgcccgag 1000 ccacccgagg agtacgtgta cccggactac cgtggcaagg gctgcgtgga 1050 cgagagcggc ttcgtgtacg cgatcgggga gaagttcgcg ccgggcccct 1100 eggeetgeee gtgeetgtge acegaggagg ggeegetgtg egegeageee 1150 gagtgcccga ggctgcaccc gcgctgcatc cacgtcgaca cgagccagtg 1200 ctgcccgcag tgcaaggaga ggaagaacta ctgcgagttc cggggcaaga 1250 cctatcagac tttggaggag ttcgtggtgt ctccatgcga gaggtgtcgc 1300 tgtgaagcca acggtgaggt gctatgcaca gtgtcagcgt gtccccagac 1350 ggagtgtgtg gaccctgtgt acgagcctga tcagtgctgt cccatctgca 1400 aaaatggtcc aaactgcttt gcagaaaccg cggtgatccc tgctggcaga 1450 gaagtgaaga ctgacgagtg caccatatgc cactgtactt atgaggaagg 1500 cacatggaga atcgagcggc aggccatgtg cacgagacat gaatgcaggc 1550 aaatgtagac gcttcccaga acacaaactc tgactttttc tagaacattt 1600 tactgatgtg aacattctag atgactctgg gaactatcag tcaaagaaga 1650 cttttgatga ggaataatgg aaaattgttg gtacttttcc ttttcttgat 1700 aacagttact acaacagaag gaaatggata tatttcaaaa catcaacaag 1750 aactttgggc ataaaatcct tctctaaata aatgtgctat tttcacagta 1800

<210> 11

<211> 325

<212> PRT

<213> Homo sapiens

<400> 11

Met Pro Ser Ser Thr Ala Met Ala Val Gly Ala Leu Ser Ser Ser

Leu Leu Val Thr Cys Cys Leu Met Val Ala Leu Cys Ser Pro Ser 20 25 30

Ile Pro Leu Glu Lys Leu Ala Gln Ala Pro Glu Gln Pro Gly Gln 35 40 45

Glu Lys Arg Glu His Ala Thr Arg Asp Gly Pro Gly Arg Val Asn
50 55 60

Glu Leu Gly Arg Pro Ala Arg Asp Glu Gly Gly Ser Gly Arg Asp
65 70 75

Trp Lys Ser Lys Ser Gly Arg Gly Leu Ala Gly Arg Glu Pro Trp 80 85 90

Ser Lys Leu Lys Gln Ala Trp Val Ser Gln Gly Gly Ala Lys 95 100 105

Ala Gly Asp Leu Gln Val Arg Pro Arg Gly Asp Thr Pro Gln Ala 110 115 120

Glu Ala Leu Ala Ala Ala Gln Asp Ala Ile Gly Pro Glu Leu 125 130 135

Ala Pro Thr Pro Glu Pro Pro Glu Glu Tyr Val Tyr Pro Asp Tyr
140 145 150

Arg Gly Lys Gly Cys Val Asp Glu Ser Gly Phe Val Tyr Ala Ile 155 160 165

Gly Glu Lys Phe Ala Pro Gly Pro Ser Ala Cys Pro Cys Leu Cys 170 175 180

Thr Glu Glu Gly Pro Leu Cys Ala Gln Pro Glu Cys Pro Arg Leu 185 190 195

His Pro Arg Cys Ile His Val Asp Thr Ser Gln Cys Cys Pro Gln 200 205 210

Cys Lys Glu Arg Lys Asn Tyr Cys Glu Phe Arg Gly Lys Thr Tyr 215 220 225

Gln Thr Leu Glu Glu Phe Val Val Ser Pro Cys Glu Arg Cys Arg

				230					235					240
Cys (	Glu	Ala	Asn	Gly 245	Glu	Val	Leu	Cys	Thr 250	Val	Ser	Ala	Cys	Pro 255
Gln '	Thr	Glu	Сув	Val 260	Asp	Pro	Val	Tyr	Glu 265	Pro	Asp	Gln	Cys	Cys 270
Pro	Ile	Cys	Lys	Asn 275	Gly	Pro	Asn	Cys	Phe 280	Ala	Glu	Thr	Ala	Val 285
Ile	Pro	Ala	Gly	Arg 290	Glu	Val	Lys	Thr	Asp 295	Glu	Cys	Thr	Ile	Cys 300
His	Cys	Thr	Tyr	Glu 305	Glu	Gly	Thr	Trp	Arg 310	Ile	Glu	Arg	Gln	Ala 315
Met	Cys	Thr	Arg	His 320	Glu	Суѕ	Arg	Gln	Met 325					
<210><211><211><212><213>	24 DN		cial	Seq	uenc	e								
<220> <223>		nthe	tic	Olig	onuc	leot	ide	Prob	e					
<400> gagg		cgc	tgtg	aagc	ca a	cgg	24							
<210><211><212><212><213>	24 DN		cial	Seq	uenc	e					•			
<220> <223>		nthe	tic	Olig	onuc	leot	ide	Prob	e					
<400> cgct		ttc	tcca	.tgtg	cc t	tcc	24							
<210><211><211><212><213>	45 DN	Α	cial	Seg	uenc	e								
<220> <223>		nthe	tic	Olig	onuc	leot	ide	Prob	e					
<400> gacc	14 ggag	tgt	gtgg	jacco	tg t	gtac	gago	c tg	atca	.gtgc	tgt	cc 4	5	
<210 × <211 × <212 × <213 ×	> 15 > DN	87 A	apie	ns										

<400> 15 cagccacaga cgggtcatga gcgcggtatt actgctggcc ctcctggggt 50 tcatcctccc actgccagga gtgcaggcgc tgctctgcca gtttgggaca 100 gttcagcatg tgtggaaggt gtccgaccta ccccggcaat ggacccctaa 150 gaacaccage tgcgacageg gettggggtg ccaggacacg ttgatgetca 200 ttgagagcgg accccaagtg agcctggtgc tctccaaggg ctgcacggag 250 gccaaggacc aggagccccg cgtcactgag caccggatgg gccccggcct 300 ctccctgatc tcctacacct tcgtgtgccg ccaggaggac ttctgcaaca 350 acctcgttaa ctccctcccg ctttgggccc cacagccccc agcagaccca 400 ggatccttga ggtgcccagt ctgcttgtct atggaaggct gtctggaggg 450 gacaacagaa gagatctgcc ccaaggggac cacacactgt tatgatggcc 500 tcctcaggct caggggagga ggcatcttct ccaatctgag agtccaggga 550 tgcatgccc agccaggttg caacctgctc aatgggacac aggaaattgg 600 gcccgtgggt atgactgaga actgcaatag gaaagatttt ctgacctgtc 650 atcgggggac caccattatg acacacggaa acttggctca agaacccact 700 gattggacca catcgaatac cgagatgtgc gaggtggggc aggtgtgtca 750 ggagacgctg ctgctcatag atgtaggact cacatcaacc ctggtgggga 800 caaaaggctg cagcactgtt ggggctcaaa attcccagaa gaccaccatc 850 cactcagccc ctcctggggt gcttgtggcc tcctataccc acttctgctc 900 ctcggacctg tgcaatagtg ccagcagcag cagcgttctg ctgaactccc 950 tecetectea agetgeeect gteceaggag aceggeagtg tectacetgt 1000 gtgcagcccc ttggaacctg ttcaagtggc tccccccgaa tgacctgccc 1050 caggggcgcc actcattgtt atgatgggta cattcatctc tcaggaggtg 1100 ggctgtccac caaaatgagc attcagggct gcgtggccca accttccagc 1150 ttcttgttga accacaccag acaaatcggg atcttctctg cgcgtgagaa 1200 gcgtgatgtg cagcctcctg cctctcagca tgagggaggt ggggctgagg 1250 gcctggagtc tctcacttgg ggggtggggc tggcactggc cccagcgctg 1300 tggtggggag tggtttgccc ttcctgctaa ctctattacc cccacgattc 1350 ttcaccgctg ctgaccaccc acactcaacc tccctctgac ctcataacct 1400 aatggccttg gacaccagat tettteccat tetgtecatg aatcatette 1450 cccacacaca atcattcata tctactcacc taacagcaac actggggaga 1500 gcctggagca tccggacttg ccctatggga gaggggacgc tggaggagtg 1550 gctgcatgta tctgataata cagaccctgt cctttca 1587

<210> 16 <211> 437 <212> PRT <213> Homo sapiens

<400> 16

Met Ser Ala Val Leu Leu Leu Ala Leu Leu Gly Phe Ile Leu Pro 1 5 10 15

Leu Pro Gly Val Gln Ala Leu Leu Cys Gln Phe Gly Thr Val Gln 20 25 30

His Val Trp Lys Val Ser Asp Leu Pro Arg Gln Trp Thr Pro Lys 35 40 45

Asn Thr Ser Cys Asp Ser Gly Leu Gly Cys Gln Asp Thr Leu Met 50 55 60

Leu Ile Glu Ser Gly Pro Gln Val Ser Leu Val Leu Ser Lys Gly 65 70 75

Cys Thr Glu Ala Lys Asp Gln Glu Pro Arg Val Thr Glu His Arg 80 85 90

Met Gly Pro Gly Leu Ser Leu Ile Ser Tyr Thr Phe Val Cys Arg 95 100 105

Gln Glu Asp Phe Cys Asn Asn Leu Val Asn Ser Leu Pro Leu Trp

Ala Pro Gln Pro Pro Ala Asp Pro Gly Ser Leu Arg Cys Pro Val

Cys Leu Ser Met Glu Gly Cys Leu Glu Gly Thr Thr Glu Glu Ile 140 145 150

Cys Pro Lys Gly Thr Thr His Cys Tyr Asp Gly Leu Leu Arg Leu 155 160 165

Arg Gly Gly Gle Phe Ser Asn Leu Arg Val Gln Gly Cys Met
170 175 180

Pro Gln Pro Gly Cys Asn Leu Leu Asn Gly Thr Gln Glu Ile Gly
185 190 195

Pro Val Gly Met Thr Glu Asn Cys Asn Arg Lys Asp Phe Leu Thr 200 205 210

Cys His Arg Gly Thr Thr Ile Met Thr His Gly Asn Leu Ala Gln 215 220 225

Glu Pro Thr Asp Trp Thr Thr Ser Asn Thr Glu Met Cys Glu Val

				230					235					240
Gly	Gln	Val	Cys	Gln 245	Glu	Thr	Leu	Leu	Leu 250	Ile	Asp	Val	Gly	Leu 255
Thr	Ser	Thr	Leu	Val 260	Gly	Thr	Lys	Gly	Cys 265	Ser	Thr	Val	Gly	Ala 270
Gln	Asn	Ser	Gln	Lys 275	Thr	Thr	Ile	His	Ser 280	Ala	Pro	Pro	Gly	Val 285
Leu	Val	Ala	Ser	Tyr 290	Thr	His	Phe	Cys	Ser 295	Ser	Asp	Leu	Cys	Asn 300
Ser	Ala	Ser	Ser	Ser 305	Ser	Val	Leu	Leu	Asn 310	Ser	Leu	Pro	Pro	Gln 315
Ala	Ala	Pro	Val	Pro 320	Gly	Asp	Arg	Gln	Cys 325	Pro	Thr	Cys	Val	Gln 330
Pro	Leu	Gly	Thr	Cys 335	Ser	Ser	Gly	Ser	Pro 340	Arg	Met	Thr	Cys	Pro 345
Arg	Gly	Ala	Thr	His 350	Cys	Tyr	Asp	Gly	Tyr 355	Ile	His	Leu	Sér	Gly 360
Gly	Gly	Leu	Ser	Thr 365	Lys	Met	Ser	Ile	Gln 370	Gly	Сув	Val	Ala	Gln 375
Pro	Ser	Ser	Phe	Leu 380	Leu	Asn	His	Thr	Arg 385	Gln	Ile	Gly	Ile	Phe 390
Ser	Ala	Arg	Glu	Lys 395	Arg	Asp	Val	Gln	Pro 400	Pro	Ala	Ser	Gln	His 405
Glu	Gly	Gly	Gly	Ala 410	Glu	Gly	Leu	Glu	Ser 415	Leu	Thr	Trp	Gly	Val 420
Gly	Leu	Ala	Leu	Ala 425		Ala	Leu	Trp	Trp 430	Gly	Val	Val	Cys	Pro 435
Ser	Cys													

<210> 17

<211> 2387

<212> DNA

<213> Homo sapiens

<400> 17
cgacgatgct acgcgcgcc ggctgcctcc tccggacctc cgtagcgcct 50
gccgcggccc tggctgcggc gctgctctcg tcgcttgcgc gctgctctct 100
tctagagccg agggacccgg tggcctcgtc gctcagcccc tatttcggca 150
ccaagactcg ctacgaggat gtcaaccccg tgctattgtc gggccccgag 200

gctccgtggc gggaccctga gctgctggag gggacctgca ccccggtgca 250 getggtegee eteattegee aeggeaeeeg etaeeeeaeg gteaaaeaga 300 tecgcaaget gaggeagetg caegggttge tgeaggeeeg egggteeagg 350 gatggcgggg ctagtagtac cggcagccgc gacctgggtg cagcgctggc 400 cgactggcct ttgtggtacg cggactggat ggacgggcag ctagtagaga 450 agggacggca ggatatgcga cagctggcgc tgcgtctggc ctcgctcttc 500 ccggcccttt tcagccgtga gaactacggc cgcctgcggc tcatcaccag 550 ttccaagcac cgctgcatgg atagcagcgc cgccttcctg caggggctgt 600 ggcagcacta ccaccctggc ttgccgccgc cggacgtcgc agatatggag 650 tttggacctc caacagttaa tgataaacta atgagatttt ttgatcactg 700 tgagaagttt ttaactgaag tagaaaaaaa tgctacagct ctttatcacg 750 tggaagcctt caaaactgga ccagaaatgc agaacatttt aaaaaaagtt 800 gcagctactt tgcaagtgcc agtaaatgat ttaaatgcag atttaattca 850 agtagccttt ttcacctgtt catttgacct ggcaattaaa ggtgttaaat 900 ctccttggtg tgatgttttt gacatagatg atgcaaaggt attagaatat 950 ttaaatgatc tgaaacaata ttggaaaaga ggatatgggt atactattaa 1000 cagtcgatcc agctgcacct tgtttcagga tatctttcag cacttggaca 1050 aagcagttga acagaaacaa aggtctcagc caatttcttc tccagtcatc 1100 ctccagtttg gtcatgcaga gactcttctt ccactgcttt ctctcatggg 1150 ctacttcaaa gacaaggaac ccctaacage gtacaattac aaaaaacaaa 1200 tgcatcggaa gttccgaagt ggtctcattg taccttatgc ctcgaacctg 1250 atatttgtgc tttaccactg tgaaaatgct aagactccta aagaacaatt 1300 ccgagtgcag atgttattaa atgaaaaggt gttacctttg gcttactcac 1350 aagaaactgt ttcattttat gaagatctga agaaccacta caaggacatc 1400 cttcagagtt gtcaaaccag tgaagaatgt gaattagcaa gggctaacag 1450 tacatctgat gaactatgag taactgaaga acatttttaa ttctttagga 1500 atctgcaatg agtgattaca tgcttgtaat aggtaggcaa ttccttgatt 1550 acaggaagct tttatattac ttgagtattt ctgtcttttc acagaaaaac 1600 attgggtttc tctctgggtt tggacatgaa atgtaagaaa agatttttca 1650 cctggagcagc tctcttaagg agaacaaat ctatttagag aaacagctgg 1700 ccctgcaaat gttacagaa atgaaattct tcctacttat ataagaaatc 1750 tcacactgag atagaattgt gatttcataa taacacttga aaagtgctgg 1800 agtaacaaaa tatctcagtt ggaccatcct taacttgatt gaactgtcta 1850 ggaactttac agattgtct gcagttctct ctcttttcc tcaggtagga 1900 cagctctagc atttctaa tcaggaatat tgtggtaagc tgggagtatc 1950 actctggaag aaagtaacat ctccagatga gaatttgaaa caagaaacag 2000 agtgttgtaa aaggacacct tcactgaagc aagtcggaaa gtacaatgaa 2050 aataaatatt tttggtatt atttatgaaa tatttgaaca tttttcaat 2100 aattccttt tacttctagg aagtctcaaa agaccatct aaattatta 2150 atgtttgac aattagcaac aagtcagata gttagaatcg ttcgatttt 2250 atatttcct attatagaa atgtatctt tggttgttg attttctt 2300 cttctttg aaatagtct gagttctgtc aaatgccgtg aaagtatttg 2350 ctataataaa gaaaattctt gtgactttaa aaaaaaa 2387

<210> 18

<211> 487

<212> PRT

<213> Homo sapiens

<400> 18

Met Leu Arg Ala Pro Gly Cys Leu Leu Arg Thr Ser Val Ala Pro 1 5 10 15

Ala Ala Leu Ala Ala Leu Leu Ser Ser Leu Ala Arg Cys
20 25 30

Ser Leu Leu Glu Pro Arg Asp Pro Val Ala Ser Ser Leu Ser Pro 35 40 45

Tyr Phe Gly Thr Lys Thr Arg Tyr Glu Asp Val Asn Pro Val Leu
50 55 60

Leu Ser Gly Pro Glu Ala Pro Trp Arg Asp Pro Glu Leu Leu Glu 65 70 75

Gly Thr Cys Thr Pro Val Gln Leu Val Ala Leu Ile Arg His Gly
80 85 90

Thr Arg Tyr Pro Thr Val Lys Gln Ile Arg Lys Leu Arg Gln Leu 95 100 105

His Gly Leu Leu Gln Ala Arg Gly Ser Arg Asp Gly Gly Ala Ser

				110					115					120
Ser	Thr	Gly	Ser	Arg 125	Asp	Leu	Gly	Ala	Ala 130	Leu	Ala	Asp	Trp	Pro 135
Leu	Trp	Tyr	Ala	Asp 140	Trp	Met	Asp	Gly	Gln 145	Leu	Val	Glu	Lys	Gly 150
Arg	Gln	Asp	Met	Arg 155	Gln	Leu	Ala	Leu	Arg 160	Leu	Ala	Ser	Leu	Phe 165
Pro	Ala	Leu	Phe	Ser 170	Arg	Glu	Asn	Tyr	Gly 175	Arg	Leu	Arg	Leu	Ile 180
Thr	Ser	Ser	Lys	His 185	Arg	Cys	Met	Asp	Ser 190	Ser	Ala	Ala	Phe	Leu 195
Gln	Gly	Leu	Trp	Gln 200	His	Tyr	His	Pro	Gly 205	Leu	Pro	Pro	Pro	Asp 210
Val	Ala	Asp	Met	Glu 215	Phe	Gly	Pro	Pro	Thr 220	Val	Asn	Asp	Lys	Leu 225
Met	Arg	Phe	Phe	Asp 230	His	Cys	Glu	Lys	Phe 235	Leu	Thr	Glu	Val	Glu 240
Lys	Asn	Ala	Thr	Ala 245	Leu	Tyr	His	Val	Glu 250	Ala	Phe	Lys	Thr	Gly 255
Pro	Glu	Met	Gln	Asn 260	Ile	Leu	Lys	Lys	Val 265	Ala	Ala	Thr	Leu	Gln 270
Val	Pro	Val	Asn	Asp 275		Asn	Ala	Asp	Leu 280	Ile	Gln	Val	Ala	Phe 285
Phe	Thr	Cys	Ser	Phe 290		Leu	Ala	Ile	Lys 295	Gly	Val	Lys	Ser	Pro 300
Trp	Cys	Asp	Val	Phe 305		Ile	Asp	Asp	Ala 310	Lys	Val	Leu	Glu	Tyr 315
Leu	Asn	Asp	Leu	Lys 320	Gln	Туг	Trp	Lys	Arg 325	Gly	Tyr	Gly	тyr	Thr 330
Ile	Asn	Ser	Arg	Ser 335		Cys	Thr	Leu	9he 340	Gln	Asp	Ile	Phe	345
His	Leu	Asp	Lys	350		Glu	ı Gln	Lys	355		Ser	Glr	Pro	360
Ser	Ser	Pro	Val	. Ile		ı Glr	n Phe	e Gly	/ His	Ala	Glu	Thi	Leu	1 Leu 375
Pro	Leu	Leu	ı Ser	Leu 380		Gly	ү Туг	Phe	2 Lys 385		Lys	Glu	ı Pro	390
Thr	Ala	туз	Asr	1 Ty:		s Ly:	s Glr	n Met	His 400		j Lys	s Phe	e Arg	9 Ser 405

Gly Leu Ile Val Pro Tyr Ala Ser Asn Leu Ile Phe Val Leu Tyr 420

His Cys Glu Asn Ala Lys Thr Pro Lys Glu Gln Phe Arg Val Gln 435

Met Leu Leu Asn Glu Lys Val Leu Pro Leu Ala Tyr Ser Gln Glu 445

Thr Val Ser Phe Tyr Glu Asp Leu Lys Asn His Tyr Lys Asp Ile 465

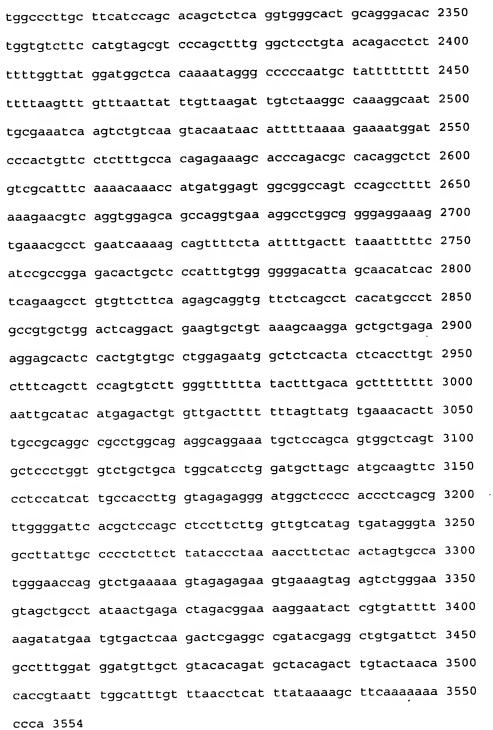
Leu Gln Ser Cys Gln Thr Ser Glu Glu Cys Glu Leu Ala Arg Ala 480

Asn Ser Thr Ser Asp Glu Leu 485

<210> 19 <211> 3554 <212> DNA

<213> Homo sapiens

<400> 19 gggactacaa gccgcgccgc gctgccgctg gcccctcagc aaccctcgac 50 atggcgctga ggcggccacc gcgactccgg ctctgcgctc ggctgcctga 100 cttcttcctg ctgctgcttt tcaggggctg cctgataggg gctgtaaatc 150 tcaaatccag caatcgaacc ccagtggtac aggaatttga aagtgtggaa 200 ctgtcttgca tcattacgga ttcgcagaca agtgacccca ggatcgagtg 250 gaagaaaatt caagatgaac aaaccacata tgtgtttttt gacaacaaaa 300 ttcagggaga cttggcgggt cgtgcagaaa tactggggaa gacatccctg 350 aagatetgga atgtgacaeg gagagaetea geeetttate getgtgaggt 400 cgttgctcga aatgaccgca aggaaattga tgagattgtg atcgagttaa 450 ctgtgcaagt gaagccagtg acccctgtct gtagagtgcc gaaggctgta 500 ccagtaggca agatggcaac actgcactgc caggagagtg agggccaccc 550 ccggcctcac tacagctggt atcgcaatga tgtaccactg cccacggatt 600 ccagagccaa tcccagattt cgcaattctt ctttccactt aaactctgaa 650 acaggcactt tggtgttcac tgctgttcac aaggacgact ctgggcagta 700 ctactgcatt gcttccaatg acgcaggctc agccaggtgt gaggagcagg 750 agatggaagt ctatgacctg aacattggcg gaattattgg gggggttctg 800 gttgtccttg ctgtactggc cctgatcacg ttgggcatct gctgtgcata 850 cagacgtggc tacttcatca acaataaaca ggatggagaa agttacaaga 900 acccagggaa accagatgga gttaactaca teegeaetga egaggaggge 950 gacttcagac acaagtcatc gtttgtgatc tgagacccgc ggtgtggctg 1000 agagcgcaca gagcgcacgt gcacatacet ctgctagaaa ctcctgtcaa 1050 ggcagcgaga gctgatgcac tcggacagag ctagacactc attcagaagc 1100 ttttcgtttt ggccaaagtt gaccactact cttcttactc taacaagcca 1150 catgaataga agaattttcc tcaagatgga cccggtaaat ataaccacaa 1200 ggaagcgaaa ctgggtgcgt tcactgagtt gggttcctaa tctgtttctg 1250 gcctgattcc cgcatgagta ttagggtgat cttaaagagt ttgctcacgt 1300 aaacgcccgt gctgggccct gtgaagccag catgttcacc actggtcgtt 1350 cagcagccac gacagcacca tgtgagatgg cgaggtggct ggacagcacc 1400 agcagcgcat cccggcggga acccagaaaa ggcttcttac acagcagcct 1450 tacttcatcg gcccacagac accaccgcag tttcttctta aaggetctgc 1500 tgatcggtgt tgcagtgtcc attgtggaga agctttttgg atcagcattt 1550 tgtaaaaaca accaaaatca ggaaggtaaa ttggttgctg gaagagggat 1600 cttgcctgag gaaccctgct tgtccaacag ggtgtcagga tttaaggaaa 1650 accttcgtct taggctaagt ctgaaatggt actgaaatat gcttttctat 1700 gggtcttgtt tattttataa aattttacat ctaaattttt gctaaggatg 1750 tattttgatt attgaaaaga aaatttctat ttaaactgta aatatattgt 1800 catacaatgt taaataacct atttttttaa aaaagttcaa cttaaggtag 1850 aagttccaag ctactagtgt taaattggaa aatatcaata attaagagta 1900 ttttacccaa ggaatcctct catggaagtt tactgtgatg ttccttttct 1950 cacacaagtt ttagcctttt tcacaaggga actcatactg tctacacatc 2000 agaccatagt tgcttaggaa acctttaaaa attccagtta agcaatgttg 2050 aaatcagttt gcatctcttc aaaagaaacc tctcaggtta gctttgaact 2100 gcctcttcct gagatgacta ggacagtctg tacccagagg ccacccagaa 2150 geceteagat gtacatacae agatgecagt cageteetgg ggttgegeca 2200 ggcgccccg ctctagctca ctgttgcctc gctgtctgcc aggaggccct 2250 gccatccttg ggccctggca gtggctgtgt cccagtgagc tttactcacg 2300



<sup>&</sup>lt;210> 20

<sup>&</sup>lt;211> 310 <212> PRT

<sup>&</sup>lt;213> Homo sapiens

<sup>&</sup>lt;400> 20

Met 1	Ala	Leu	Arg	Arg 5	Pro	Pro	Arg	Leu	Arg 10	Leu	Cys	Ala	Arg	Leu 15
Pro	Asp	Phe	Phe	Leu 20	Leu	Leu	Leu	Phe	Arg 25	Gly	Cys	Leu	Ile	Gly 30
Ala	Val	Asn	Leu	Lys 35	Ser	Ser	Asn	Arg	Thr 40	Pro	Val	Val	Gln	Glu 45
Phe	Glu	Ser	Val	Glu 50	Leu	Ser	Cys	Ile	Ile 55	Thr	Asp	Ser	Gln	Thr 60
Ser	Asp	Pro	Arg	Ile 65	Glu	Trp	Lys	Lys	Ile 70	Gln	Asp	Glu	Gln	Thr 75
Thr	Tyr	Val	Phe	Phe 80	Asp	Asn	Lys	Ile	Gln 85	Gly	Asp	Leu	Ala	Gly 90
Arg	Ala	Glu	Ile	Leu 95	Gly	Lys	Thr	Ser	Leu 100	Lys	Ile	Trp	Asn	Val 105
Thr	Arg	Arg	Asp	Ser 110	Ala	Leu	Tyr	Arg	Cys 115	Glu	Val	Val	Ala	Arg 120
Asn	Asp	Arg	Lys	Glu 125	Ile	Asp	Glu	Ile	Val 130	Ile	Glu	Leu	Thr	Val 135
Gln	Val	Lys	Pro	Val 140	Thr	Pro	Val	Cys	Arg 145	Val	Pro	Lys	Ala	Val 150
Pro	Val	Gly	Lys	Met 155	Ala	Thr	Leu	His	Cys 160	Gln	Glu	Ser	Glu	Gly 165
His	Pro	Arg	Pro	His 170	Tyr	Ser	Trp	Tyr	Arg 175	Asn	Asp	Val	Pro	Leu 180
Pro	Thr	Asp	Ser	Arg		Asn	Pro	Arg	Phe 190	Arg	Asn	Ser	Ser	Phe 195
His	Leu	. Asn	. Ser	Glu 200		Gly	Thr	Leu	Val 205		Thr	Ala	. Val	His 210
Lys	Asp	Asp	Ser	Gly 215		Tyr	Туг	Cys	Ile 220	Ala	Ser	Asr	a Asp	Ala 225
Gly	Ser	Ala	a Arg	Cys 230		Glu	Gln	Glu	Met 235		Val	Туг	Asp	Leu 240
Asn	Ile	e Gly	/ Gly	/ Ile 245		Gly	Gly	Val	Leu 250		. Val	Leu	ı Ala	Val 255
Leu	Ala	ı Lev	ı Ile	Thr 260		Gly	/ Ile	Cys	265		ту1	c Aro	g Arc	Gly 270
туг	Phe	e Ile	e Asr	1 Asn 275		Glr	a Asp	Gly	/ Glu 280		тул	r Lys	s Asr	285
Gly	Lys	s Pro	Asp	o Gly	v Val	Asr	ı Tyr	: Ile	e Arg	g Thi	Asp	o Gli	u Glu	ı Gly

290 295 300

Asp Phe Arg His Lys Ser Ser Phe Val Ile 305 310

<210> 21

<211> 3437

<212> DNA

<213> Homo sapiens

<400> 21 caggaccagg tettectacg etggageage ggggagaeag ecaccatgea 50 catcctcgtg gtccatgcca tggtgatcct gctgacgctg ggcccgcctc 100 gagccgacga cagcgagttc caggcgctgc tggacatctg gtttccggag 150 gagaagccac tgcccaccgc cttcctggtg gacacatcgg aggaggcgct 200 gctgcttcct gactggctga agctgcgcat gatccgttct gaggtgctcc 250 gcctggtgga cgccgcctg caggacctgg agccgcagca gctgctgctg 300 ttcgtgcagt cgtttggcat ccccgtgtcc agcatgagca aactcctcca 350 gttcctggac caggcagtgg cccacgaccc ccagactctg gagcagaaca 400 tcatggacaa gaattacatg gcccacctgg tggaggtcca gcatgagcgc 450 ggcgcctccg gaggccagac tttccactcc ttgctcacag cctccctgcc 500 gcccgccga gacagcacag aggcacccaa accaaagagc agcccagagc 550 agcccatagg ccagggccgg attcgggtgg ggacccagct ccgggtgctg 600 ggccctgagg acgacctggc tggcatgttc ctccagattt tcccgctcag 650 cccggaccct cggtggcaga gctccagtcc ccgccccgtg gccctcgccc 700 tgcagcaggc cctgggccag gagctggccc gcgtcgtcca gggcagcccc 750 gaggtgccgg gcatcacggt gcgtgtcctg caggccctcg ccaccctgct 800 cagetececa caeggeggtg ceetggtgat gtecatgeac egtagecaet 850 teetggeetg eccgetgetg egecagetet gecagtacea gegetgtgtg 900 ccacaggaca ccggcttctc ctcgctcttc ctgaaggtgc tcctgcagat 950 gctgcagtgg ctggacagcc ctggcgtgga gggcgggccc ctgcgggcac 1000 agctcaggat gcttgccagc caggcctcag ccgggcgcag gctcagtgat 1050 gtgcgagggg ggctcctgcg cctggccgag gccctggcct tccgtcagga 1100 cctggaggtg gtcagctcca ccgtccgtgc cgtcatcgcc accctgaggt 1150 ctggggagca gtgcagcgtg gagccggacc tgatcagcaa agtcctccag 1200 gggctgatcg aggtgaggtc ccccacctg gaggagctgc tgactgcatt 1250 cttctctgcc actgcggatg ctgcctcccc gtttccagcc tgtaagcccg 1300 ttgtggtggt gagctccctg ctgctgcagg aggaggagcc cctggctggg 1350 gggaagccgg gtgcggacgg tggcagcctg gaggccgtgc ggctggggcc 1400 ctcgtcaggc ctcctagtgg actggctgga aatgctggac cccgaggtgg 1450 tragcagety eccegacety cagetrage tyetettete eeggaggaag 1500 ggcaaaggtc aggcccaggt gccctcgttc cgtccctacc tcctgaccct 1550 cttcacgcat cagtccagct ggcccacact gcaccagtgc atccgagtcc 1600 tgctgggcaa gagccgggaa cagaggttcg acccctctgc ctctctggac 1650 ttcctctggg cctgcatcca tgttcctcgc atctggcagg ggcgggacca 1700 gcgcaccccg cagaagcggc gggaggagct ggtgctgcgg gtccagggcc 1750 cggagctcat cagcctggtg gagctgatcc tggccgaggc ggagacgcgg 1800 agccaggacg gggacacagc cgcctgcagc ctcatccagg cccggctgcc 1850 cctgctgctc agctgctgct gtggggacga tgagagtgtc aggaaggtga 1900 cggagcacct gtcaggctgc atccagcagt ggggagacag cgtgctggga 1950 aggegetgee gagacettet eetgeagete tacetacage ggeeggaget 2000 gegggtgeec gtgeetgagg teetaetgea eagegaaggg getgeeagea 2050 gcagcgtctg caagctggac ggactcatcc accgcttcat cacgctcctt 2100 geggacacca gegacteceg ggegttggag aaccgagggg eggatgecag 2150 catggcctgc cggaagctgg cggtggcgca cccgctgctg ctgctcaggc 2200 acctgcccat gatcgcggcg ctcctgcacg gccgcaccca cctcaacttc 2250 caggagttcc ggcagcagaa ccacctgagc tgcttcctgc acgtgctggg 2300 cctgctggag ctgctgcagc cgcacgtgtt ccgcagcgag caccaggggg 2350 cgctgtggga ctgccttctg tccttcatcc gcctgctgct gaattacagg 2400 aagteeteee geeatetgge tgeetteate aacaagtttg tgeagtteat 2450 ccataagtac attacctaca atgccccagc agccatctcc ttcctgcaga 2500 agcacgccga cccgctccac gacctgtcct tcgacaacag tgacctggtg 2550 atgctgaaat ccctccttgc agggctcagc ctgcccagca gggacgacag 2600 gaccgaccga ggcctggacg aagagggcga ggaggagagc tcagccggct 2650

cettgeceet ggteagegte tecetgttea eccetetgae egeggeegag 2700 atggccccct acatgaaacg gctttcccgg ggccaaacgg tggaggatct 2750 gctggaggtt ctgagtgaca tagacgagat gtcccggcgg agacccgaga 2800 tectgagett ettetegace aacetgeage ggetgatgag eteggeegag 2850 gagtgttgcc gcaacctcgc cttcagcctg gccctgcgct ccatgcagaa 2900 cagececage attgeageeg ettteetgee caegtteatg taetgeetgg 2950 gcagccagga ctttgaggtg gtgcagacgg ccctccggaa cctgcctgag 3000 tacgctctcc tgtgccaaga gcacgcggct gtgctgctcc accgggcctt 3050 cctggtgggc atgtacggcc agatggaccc cagcgcgcag atctccgagg 3100 ccctgaggat cctgcatatg gaggccgtga tgtgagcctg tggcagccga 3150 cecceteca ageceeggee egteeegtee eeggggatee tegaggeaaa 3200 geccaggaag egtgggegtt getggtetgt eegaggaggt gagggegeeg 3250 agccctgagg ccaggcaggc ccaggagcaa tactccgagc cctggggtgg 3300 ctccgggccg gccgctggca tcaggggccg tccagcaagc cctcattcac 3350 cttctgggcc acagccctgc cgcggagcgg cggatccccc cgggcatggc 3400 ctgggctggt tttgaatgaa acgacctgaa ctgtcaa 3437

<210> 22

<211> 1029

<212> PRT

<213> Homo sapiens

<400> 22

Met His Ile Leu Val Val His Ala Met Val Ile Leu Leu Thr Leu

1 5 10 15

Gly Pro Pro Arg Ala Asp Asp Ser Glu Phe Gln Ala Leu Leu Asp
20 25 30

Ile Trp Phe Pro Glu Glu Lys Pro Leu Pro Thr Ala Phe Leu Val 35 40 45

Asp Thr Ser Glu Glu Ala Leu Leu Leu Pro Asp Trp Leu Lys Leu
50 55 60

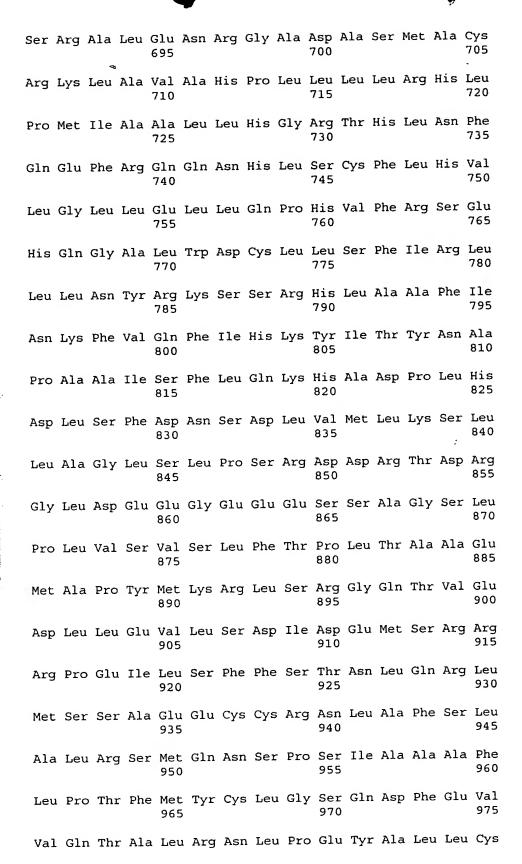
Arg Met Ile Arg Ser Glu Val Leu Arg Leu Val Asp Ala Ala Leu 65 70 75

Gln Asp Leu Glu Pro Gln Gln Leu Leu Leu Phe Val Gln Ser Phe 80 85 90

Gly Ile Pro Val Ser Ser Met Ser Lys Leu Leu Gln Phe Leu Asp 95 100 105

Gln	Ala	Val	Ala	His 110	Asp	Pro	Gln	Thr	Leu 115	Glu	Gln	Asn	Ile	Met 120
Asp	Lys	Asn	Tyr	Met 125	Ala	His	Leu	Val	Glu 130	Val	Gln	His	Glu	Arg 135
Gly	Ala	Ser	Gly	Gly 140	Gln	Thr	Phe	His	Ser 145	Leu	Leu	Thr	Ala	Ser 150
Leu	Pro	Pro	Arg	Arg 155	Asp	Ser	Thr	Glu	Ala 160	Pro	Lys	Pro	Lys	Ser 165
Ser	Pro	Glu	Gln	Pro 170	Ile	Gly	Gln	Gly	Arg 175	Ile	Arg	Val	Gly	Thr 180
Gln	Leu	Arg	Val	Leu 185	Gly	Pro	Glu	Asp	Asp 190	Leu	Ala	Gly	Met	Phe 195
Leu	Gln	Ile	Phe	Pro 200	Leu	Ser	Pro	Asp	Pro 205	Arg	Trp	Gln	Ser	Ser 210
Ser	Pro	Arg	Pro	Val 215	Ala	Leu	Ala	Leu	Gln 220	Gln	Ala	Leu	Gly	Gln 225
Glu	Leu	Ala	Arg	Val 230	Val	Gln	Gly	Ser	Pro 235	Glu	Val	Pro	Gly	Ile 240
Thr	Val	Arg	Val	Leu 245	Gln	Ala	Leu	Ala	Thr 250	Leu	Leu	Ser	Ser	Pro 255
His	Gly	Gly	Ala	Leu 260	Val	Met	Ser	Met	His 265	Arg	Ser	His	Phe	Leu 270
Ala	Cys	Pro	Leu	Leu 275	Arg	Gln	Leu	Cys	Gln 280	Tyr	Gln	Arg	Cys	Val 285
Pro	Gln	Asp	Thr	Gly 290		Ser	Ser	Leu	Phe 295	Leu	Lys	val	Leu	100 300
Gln	Met	Leu	Gln	Trp 305		Asp	Ser	Pro	Gly 310	Val	Glu	Gly	Gly	Pro 315
				320					325	•				330
Arg	Arg	, Lev	ı Ser	335		Arg	Gly	Gly	7 Let 340	ı Lei	a Arg	g Lev	ı Ala	345
				350	)				355	5				7 Val 360
				365	5				370	)				7 Val 375
Glu	ı Pro	) Asp	p Let	1 Ile 380		Lys	: Val	Leu	385	n Gly	y Let	ı Ile	e Glu	ı Val 390
Arg	y Sei	r Pro	o His	s Lev	ı Glu	ı Glı	ı Lev	ı Lev	ı Thi	c Ala	a Phe	e Phe	e Sei	r Ala

				395					400					405
Thr	Ala	Asp	Ala	Ala 410	Ser	Pro	Phe	Pro	Ala 415	Cys	Lys	Pro	Val	Val 420
Val	Val	Ser	Ser	Leu 425	Leu	Leu	Gln	Glu	Glu 430	Glu	Pro	Leu	Ala	Gly 435
Gly	Lys	Pro	Gly	Ala 440	Asp	Gly	Gly	Ser	Leu 445	Glu	Ala	Val	Arg	Leu 450
Gly	Pro	Ser	Ser	Gly 455	Leu	Leu	Val	Asp	Trp 460	Leu	Glu	Met	Leu	Asp 465
Pro	Glu	Val	Val	Ser 470	Ser	Cys	Pro	Asp	Leu 475	Gln	Leu	Arg	Leu	Leu 480
Phe	Ser	Arg	Arg	Lys 485	Gly	Lys	Gly	Gln	Ala 490	Gln	Val	Pro	Ser	Phe 495
Arg	Pro	Tyr	Leu	Leu 500	Thr	Leu	Phe	Thr	His 505	Gln	Ser	Ser	Trp	Pro 510
Thr	Leu	His	Gln	Cys 515	Ile	Arg	Val	Leu	Leu 520	Gly	Lys	Ser	Arg	Glu 525
Gln	Arg	Phe	Asp	Pro 530	Ser	Ala	Ser	Leu	Asp 535	Phe	Leu	Trp	Ala	Cys 540
Ile	His	Val	Pro	Arg 545	Ile	Trp	Gln	Gly	Arg 550	Asp	Gln	Arg	Thr	Pro 555
Gln	Lys	Arg	Arg	Glu 560	Glu	Leu	Val	Leu	Arg 565	Val	Gln	Gly	Pro	Glu 570
Leu	Ile	Ser	Leu	Val 575	Glu	Leu	Ile	Leu	Ala 580	Glu	Ala	Glu	Thr	Arg 585
Ser	Gln	Asp	Gly	Asp 590	Thr	Ala	Ala	Cys	Ser 595	Leu	Ile	Gln	Ala	Arg 600
Leu	Pro	Leu	Leu	Leu 605	Ser	Cys	Cys	Cys	Gly 610	Asp	Asp	Glu	Ser	Val 615
Arg	Lys	Val	Thr	Glu 620	His	Leu	Ser	Gly	Cys 625		Gln	Gln	Trp	Gly 630
Asp	Ser	Val	Leu	Gly 635	Arg	Arg	Cys	Arg	Asp 640		Leu	Leu	Gln	Leu 645
Tyr	Leu	Gln	Arg	Pro 650		Leu	Arg	Val	Pro 655		Pro	Glu	Val	Leu 660
Leu	His	Ser	Glu	Gly 665		Ala	Ser	Ser	Ser 670	Val	Cys	Lys	Leu	Asp 675
Gly	Leu	Ile	His	Arg 680		Ile	Thr	Leu	Leu 685		Asp	Thr	Ser	Asp 690



990 985 980

Gln Glu His Ala Ala Val Leu Leu His Arg Ala Phe Leu Val Gly

Met Tyr Gly Gln Met Asp Pro Ser Ala Gln Ile Ser Glu Ala Leu 1020 1015 1010

Arg Ile Leu His Met Glu Ala Val Met 1025

<210> 23

<211> 2186

<212> DNA

<213> Homo sapiens

<400> 23

ccgggccatg cagcctcggc cccgcgggcg cccgccgcgc acccgaggag 50 atgaggetee geaatggeae etteetgaeg etgetgetet tetgeetgtg 100 cgccttcctc tcgctgtcct ggtacgcggc actcagcggc cagaaaggcg 150 acgttgtgga cgtttaccag cgggagttcc tggcgctgcg cgatcggttg 200 cacgcagctg agcaggagag cctcaagcgc tccaaggagc tcaacctggt 250 gctggacgag atcaagaggg ccgtgtcaga aaggcaggcg ctgcgagacg 300 gagacggcaa tcgcacctgg ggccgcctaa cagaggaccc ccgattgaag 350 ccgtggaacg gctcacaccg gcacgtgctg cacctgccca ccgtcttcca 400 teacetgeca cacetgetgg ecaaggagag cagtetgeag ecegeggtge 450 gcgtgggcca gggccgcacc ggagtgtcgg tggtgatggg catcccgagc 500 gtgcggcgcg aggtgcactc gtacctgact gacactctgc actcgctcat 550 ctccgagctg agcccgcagg agaaggagga ctcggtcatc gtggtgctga 600 tegeegagae tgaeteacag tacaettegg cagtgacaga gaacateaag 650 geettgttee ceaeggagat ceattetggg eteetggagg teateteace 700 ctcccccac ttctaccctg acttctcccg cctccgagag tcctttgggg 750 accccaagga gagagtcagg tggaggacca aacagaacct cgattactgc 800 tteeteatga tgtacgegea gteeaaagge atetaetaeg tgeagetgga 850 ggatgacatc gtggccaagc ccaactacct gagcaccatg aagaactttg 900 cactgcagca gccttcagag gactggatga teetggagtt eteecagetg 950 ggcttcattg gtaagatgtt caagtcgctg gacctgagcc tgattgtaga 1000 gttcattctc atgttctacc gggacaagcc catcgactgg ctcctggacc 1050 atattctgtg ggtgaaagtc tgcaaccccg agaaggatgc gaagcactgt 1100 gaccggcaga aagccaacct gcggatccgc ttcaaaccgt ccctcttcca 1150 geacgtggge acteactect egetggetgg caagatecag aaactgaagg 1200 acaaagactt tggaaagcag gcgctgcgga aggagcatgt gaacccgcca 1250 gcagaggtga gcacgagcct gaagacatac cagcacttca ccctggagaa 1300 agectacetg egegaggaet tettetggge etteacecet geegeggggg 1350 acttcatccg cttccgcttc ttccaacctc taagactgga gcggttcttc 1400 ttccgcagtg ggaacatcga gcacccggag gacaagctct tcaacacgtc 1450 tgtggaggtg ctgcccttcg acaaccctca gtcagacaag gaggccctgc 1500 aggagggccg caccgccacc ctccggtacc ctcggagccc cgacggctac 1550 ctccagatcg gctccttcta caagggagtg gcagagggag aggtggaccc 1600 agecttegge cetetggaag caetgegeet etegateeag aeggaeteee 1650 ctgtgtgggt gattctgagc gagatcttcc tgaaaaaggc cgactaagct 1700 gegggettet gagggtacce tgtggecage cetgaagece acatttetgg 1750 gggtgtcgtc actgccgtcc ccggagggcc agatacggcc ccgcccaaag 1800 ggttctgcct ggcgtcgggc ttgggccggc ctggggtccg ccgctggccc 1850 ggaggcccta ggagctggtg ctgcccccgc ccgccgggcc gcggaggagg 1900 caggoggece ceacactgtg cetgaggece ggaacegtte geaceeggee 1950 tgccccagtc aggccgtttt agaagagctt ttacttgggc gcccgccgtc 2000 totggogoga acactggaat goatatacta otttatgtgo tgtgtttttt 2050 attcttggat acatttgatt ttttcacgta agtccacata tacttctata 2100 aaaaaaaaa aaaaaaaaa aaaaaaaaa aaaaaa 2186

Leu Cys Ala Phe Leu Ser Leu Ser Trp Tyr Ala Ala Leu Ser Gly
20 25 30

<sup>&</sup>lt;210> 24

<sup>&</sup>lt;211> 548

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Homo sapiens

<sup>&</sup>lt;400> 24

Met Arg Leu Arg Asn Gly Thr Phe Leu Thr Leu Leu Phe Cys

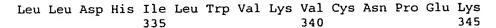
1 5 10 15

Gln	Lys	Gly	Asp	Val 35	Val	Asp	Val	Tyr	Gln 40	Arg	Glu	Phe	Leu	Ala 45
Leu	Arg	Asp	Arg	Leu 50	His	Ala	Ala	Glu	Gln 55	Glu	Ser	Leu	Lys	Arg 60
Ser	Lys	Glu	Leu	Asn 65	Leu	Val	Leu	Asp	Glu 70	Ile	Lys	Arg	Ala	Val 75
Ser	Glu	Arg	Gln	Ala 80	Leu	Arg	Asp	Gly	Asp 85	Gly	Asn	Arg	Thr	Trp 90
Gly	Arg	Leu	Thr	Glu 95	Asp	Pro	Arg	Leu	Lys 100	Pro	Trp	Asn	Gly	Ser 105
His	Arg	His	Val	Leu 110	His	Leu	Pro	Thr	Val 115	Phe	His	His	Leu	Pro 120
His	Leu	Leu	Ala	Lys 125	Glu	Ser	Ser	Leu	Gln 130	Pro	Ala	Val	Arg	Val 135
Gly	Gln	Gly	Arg	Thr 140	Gly	Val	Ser	Val	Val 145	Met	Gly	Ile	Pro	Ser 150
Val	Arg	Arg	Glu	Val 155	His	Ser	Tyr	Leu	Thr 160	Asp	Thr	Leu	His	Ser 165
Leu	Ile	Ser	Glu	Leu 170	Ser	Pro	Gln	Glu	Lys 175	Glu	Asp	Ser	Val	Ile 180
Val	Val	Leu	Ile	Ala 185	Glu	Thr	Asp	Ser	Gln 190	Tyr	Thr	Ser	Ala	Val 195
Thr	Glu	Asn	Ile	Lys 200	Ala	Leu	Phe	Pro	Thr 205	Glu	Ile	His	Ser	Gly 210
Leu	Leu	Glu	Val	Ile 215		Pro	Ser	Pro	His 220	Phe	Tyr	Pro	Asp	Phe 225
Ser	Arg	Leu	Arg	Glu 230		Phe	Gly	Asp	Pro 235	Lys	Glu	Arg	Val	Arg 240
Trp	Arg	Thr	Lys	Gln 245		Leu	Asp	Tyr	Cys 250	Phe	Leu	Met	Met	Tyr 255
Ala	Gln	Ser	Lys	Gly 260		туг	Туг	Val	Gln 265	Leu	Glu	Asp	Asp	1le 270
Val	Ala	Lys	s Pro	275		Leu	Ser	Thr	Met 280	Lys	: Asn	Phe	e Ala	Leu 285
Gln	Glr	Pro	Ser	Glu 290		Trp	Met	: Ile	295	Glu	Ph∈	Ser	Glr	300
Gly	Phe	e Ile	e Gly	7 Lys		: Phe	e Lys	s Ser	Leu 310	Asp	Leu	sei	c Leu	315
Val	Gli	ı Phe	e Ile	e Lei	ı Met	: Phe	е Туз	Arg	g Asp	Lys	Pro	o Ile	e Asp	Trp

,

330

325



320

Asp Ala Lys His Cys Asp Arg Gln Lys Ala Asn Leu Arg Ile Arg 350 355 360

Phe Lys Pro Ser Leu Phe Gln His Val Gly Thr His Ser Ser Leu 365 370 375

Ala Gly Lys Ile Gln Lys Leu Lys Asp Lys Asp Phe Gly Lys Gln 380 385 390

Ala Leu Arg Lys Glu His Val Asn Pro Pro Ala Glu Val Ser Thr 395 400 405

Ser Leu Lys Thr Tyr Gln His Phe Thr Leu Glu Lys Ala Tyr Leu
410 415 420

Arg Glu Asp Phe Phe Trp Ala Phe Thr Pro Ala Ala Gly Asp Phe 425 430 435

Ile Arg Phe Arg Phe Phe Gln Pro Leu Arg Leu Glu Arg Phe Phe
440 445 450

Phe Arg Ser Gly Asn Ile Glu His Pro Glu Asp Lys Leu Phe Asn 455 460 465

Thr Ser Val Glu Val Leu Pro Phe Asp Asn Pro Gln Ser Asp Lys
470 475 480

Glu Ala Leu Gln Glu Gly Arg Thr Ala Thr Leu Arg Tyr Pro Arg 485 490 495

Ser Pro Asp Gly Tyr Leu Gln Ile Gly Ser Phe Tyr Lys Gly Val 500 505 510

Ala Glu Gly Glu Val Asp Pro Ala Phe Gly Pro Leu Glu Ala Leu 515 520 525

Arg Leu Ser Ile Gln Thr Asp Ser Pro Val Trp Val Ile Leu Ser 530 535 540

Glu Ile Phe Leu Lys Lys Ala Asp

<210> 25

<211> 43

<212> DNA

<213> Artificial Sequence

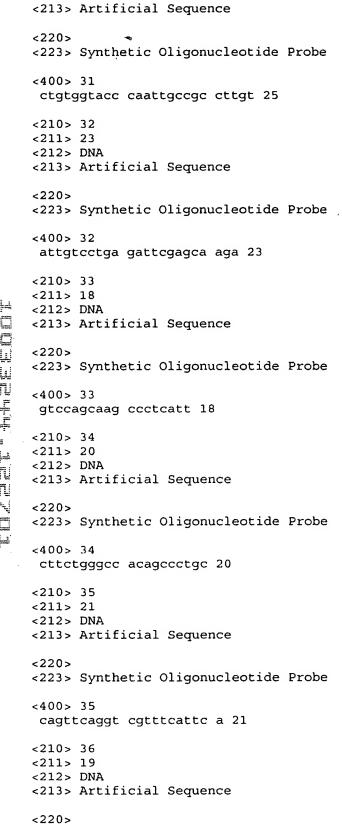
<220>

<223> Synthetic Oligonucleotide Probe

<400> 25

tgtaaaacga cggccagtta aatagacctg caattattaa tct 43

```
<210> 26
<211> 41
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic Oligonucleotide Probe
caggaaacag ctatgaccac ctgcacacct gcaaatccat t 41
<210> 27
<211> 19
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic Oligonucleotide Probe
<400> 27
actcgggatt cctgctgtt 19
<210> 28
<211> 23
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic Oligonucleotide Probe
<400> 28
aggeetttae ceaaggeeae aac 23
<210> 29
<211> 19
<212> DNA
<213> Artificial Sequence
<223> Synthetic Oligonucleotide Probe
<400> 29
ggcctgtcct gtgttctca 19
<210> 30
<211> 22
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetic Oligonucleotide Probe
<400> 30
 tcccaccact tacttccatg aa 22
<210> 31
<211> 25
<212> DNA
```







- <223> Synthetic Oligonucleotide Probe
- <400> 36 ccagtcaggc cgttttaga 19
- <210> 37
- <211> 21
- <212> DNA
- <213> Artificial Sequence
- <220>
- <223> Synthetic Oligonucleotide Probe
- <400> 37
- cgggcgccca agtaaaagct c 21
- <210> 38
- <211> 28
- <212> DNA
- <213> Artificial Sequence
- <220>
- <223> Synthetic Oligonucleotide Probe
- <400> 38
- cataaagtag tatatgcatt ccagtgtt 28